

Title (en)
STEERING APPARATUS

Title (de)
LENKVORRICHTUNG

Title (fr)
APPAREIL DE DIRECTION

Publication
EP 2292495 A1 20110309 (EN)

Application
EP 09773406 A 20090626

Priority
• JP 2009061716 W 20090626
• JP 2008170269 A 20080630

Abstract (en)
A steering apparatus 1 includes a first shaft 3 coupled to a steering wheel 2, a second shaft arranged to be eccentric relative to the first shaft 3, and a joint mechanism for coupling the first shaft and the second shaft to each other. The joint mechanism 5 includes a cam 7 having a cam groove 6 that extends in a direction perpendicular to the first shaft 3, a cam follower 8 that can slide in the cam groove 6, an eccentric pin 10 for coupling the second shaft 4 and the cam follower 8 to each other at a position eccentric relative to the second shaft 4. An outer cylinder 11 serving as a protective member is arranged concentrically with the eccentric pin 10, so as to surround the outer circumference of the eccentric pin 10. At least part of the eccentric pin 10 and the outer cylinder 11 is arranged in the cam groove 6.

IPC 8 full level
B62D 3/12 (2006.01); **B62D 1/16** (2006.01); **B62D 1/20** (2006.01); **F16D 3/04** (2006.01); **F16H 53/02** (2006.01)

CPC (source: EP US)
B62D 1/166 (2013.01 - EP US); **F16D 3/04** (2013.01 - EP US)

Cited by
GB2552653A

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
EP 2292495 A1 20110309; **EP 2292495 A4 20140514**; **EP 2292495 B1 20150916**; CN 102056787 A 20110511; CN 102056787 B 20150520; JP 2010006300 A 20100114; JP 5296430 B2 20130925; US 2011079102 A1 20110407; US 8266980 B2 20120918; WO 2010001828 A1 20100107

DOCDB simple family (application)
EP 09773406 A 20090626; CN 200980121685 A 20090626; JP 2008170269 A 20080630; JP 2009061716 W 20090626; US 99612009 A 20090626